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09/853,137	05/10/2001	Marty J. Ryberg	101948017US1	6194
23623	7590	07/15/2005	EXAMINER	
AMIN & TUROCY, LLP 1900 EAST 9TH STREET, NATIONAL CITY CENTER 24TH FLOOR, CLEVELAND, OH 44114			BELIVEAU, SCOTT E	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/853,137

Applicant(s)

RYBERG, MARTY J.

Examiner

Scott Beliveau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. The provisional application upon which priority is claimed provides adequate support under 35 U.S.C. 112 for claims 1-20 of this application; therefore the application shall be examined on the basis of its priority date of 21 December 21 2000.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

With respect to applicant's arguments that the Galipeau et al. reference fails to teach that the system does not teach the usage of "telecommunications wiring in the aircraft", the examiner respectfully disagrees. The instant application provides no special definition for the term "telecommunications wiring", however, applicant argues that it is understood in the art to mean a medium that facilitates the communications of telephone in the aircraft.

Applicant characterizes the Galipeau et al. reference as supporting high-speed data distribution through communication lines which support the delivery for audio, video, and telephony (Page 7, Lines 5-12). The examiner concurs that the Galipeau et al. reference discloses supporting telephone communications within the aircraft (ex. Col 10, Lines 39-46) using a plurality of wiring (ex. Figure 2). Accordingly, the examiner is unclear as to how the limitation pertaining to "telecommunications wiring" is not met in view of the reference and applicant's characterization of the reference. Furthermore, the examiner notes that the particular term "telecommunications wiring" is not so limited to only telephony. The IEEE

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Standard Dictionary of Electrical and Electronics Terms 3<sup>rd</sup> Edition defines

telecommunications as: “The transmission of information from one point to another”.

Accordingly, the phrase “telecommunications wiring” is not so limited to telephony but rather can apply to any medium or wiring that facilitates the transmission of information from one point to another including audio, video, and telephony.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4-14, 15 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Galipeau et al. (US Pat No. 6,249,913 B1).

In consideration of claim 1, Figure 1 of the Galipeau et al. reference illustrates an “integrated communication system for an aircraft” [10] having “at least one passenger seat” [12] (Col 4, Line 51 – Col 4, Line 20). As illustrated in Figures 6/B, the system comprises an “integrated signal unit” [18] that is operable to “receive and transmit a plurality of signals of disparate nature to and from a user of the at least one passenger seat in the aircraft” [12] (Col 6, Line 64 – Col 9, Line 21), a “plurality of aircraft communication links” (ex. seat-to-seat cable [20], RS-232 data ports, USB, IEEE-1394, etc.) “interfaced with the integrated signal unit for carrying the plurality of signals of disparate nature throughout the aircraft” [10] from sources of the plurality of signals of disparate nature” [72] (Col 5, Lines 26-34), and a

“receiving device” [124/130/144/154] “interfaced to at least one passenger seat and in communication with the integrated signal unit” [18] for “receiving at least one of the plurality of signals and outputting a signal to a passenger in the passenger seat” (Figure 9B).

With respect to the limitation that the “plurality of aircraft communication links include pre-existing aircraft telecommunication wiring”, as aforementioned, the reference discloses that the installed wiring supports the communication of information comprising audio, video, and telephony signals from remote locations thereby facilitating telecommunication services (Col 4, Lines 21-52). The particular wiring utilized within the aircraft system of Galipeau et al. is broadly construed as being “pre-existing” given that it existed before the filing of the instant application. Alternatively, the wiring is construed as “pre-existing” in the context of it necessarily existing prior to the user operating the system so as to facilitate the communication of signals between system components. Alternatively, the wiring would be considered “pre-existing” should a “integrated signal unit” [18] fail and be subsequently replaced by an operational unit (Col 6, Lines 57-62). Additionally, the reference further explicitly incorporates by reference provisional application 60/103,823 which discloses that the system may take advantage of existing wiring within the aircraft in connection with system installation or system upgrades in order to take advantage of cost savings associated with the reuse of previously installed components (Examiner designated Page 9 - 3.7 Upgrade Requirements; Page 29 – Overview – What is Voyager? (cont.)). Such wiring may include reusing the “pre-existing aircraft telecommunication wiring” associated with the telephony system (Pages 2 and 3 – Section 3.2 Telephone Distribution System; Pages 35-38 – Telephony Subsystem).

Claim 2 is rejected wherein the “plurality of signals of disparate nature comprise at least one of audio signals, video signals, and data signals” (Col 3, Lines 1-10).

Claim 4 is rejected wherein the “receiving device comprises a speaker” (Col 7, Lines 55-59).

Claim 5 is rejected wherein the “receiving device comprises a video monitor” [154] (Col 9, Lines 17-25).

Claim 6 is rejected wherein the “receiving device comprises a telephone handset” [144] (Col 8, Lines 47-50).

Claim 7 is rejected wherein the “receiving device comprises an intercom” [124] (Col 8, Lines 4-10).

Claim 8 is rejected wherein the Galipeau et al. reference discloses a “communications system” for use in an “aircraft” [10]. As previously set forth, the “system” comprises a “seat unit at a passenger seat” (Col 4, Lines 1-12) “operable to receive a plurality of signals bussed through the aircraft” [18] (Figures 1 and 6A/B), a “first audio processing circuit” [196] “operable to generate audio signals . . . being coupled to the seat unit over a wireline communication channel” [20] (Figures 9 A/B; Col 11, Lines 9-21), and a “first telephone signal processing circuit” [188] “operable to receive and send telephone signals . . . being coupled to the seat unit over a wireline communication channel” [20] (Figures 9 A/B; Col 10, Lines 39-46). The “seat unit” [18], as illustrated in Figures 6 A/B further comprises a “first audio processing receiving circuit” [120] “operable to receive the audio signals for processing and delivery to a passenger audio transducer” (or speaker) (Col 7, Line 33 – Col 8, Line 39), a “second telephone signal processing circuit” [142] “that is operable to receive

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and send . . . the telephone signals for delivery to and from a passenger telephone handset” [144] (Col 8, Line 40 – Col 9, Line 15) and “electrically circuitry” [92] “coupled to and shared by the first audio processing receiving circuit and the second telephone processing circuit” (Col 6, Lines 7-13).

With respect to the limitation such that the “audio signals and the telephone signal are communicated by the seat unit over pre-existing aircraft telecommunications wiring to the passenger seat”, as illustrated in Figure 6B, the system utilizes RS-232, USB, or 1394 in order to distribute signals between the “seat unit” [18] and the passenger seat. As aforementioned, it is the examiner’s interpretation that such wiring is “pre-existing aircraft telecommunications wiring” in a number of manners. With respect to the wiring being “aircraft telecommunications wiring”, the limitation is met given that the wiring is both used for “telecommunications” so as to distribute signals or information from one point to another and is utilized in an aircraft, thereby being aircraft wiring. With respect to the wiring being “pre-existing”, as aforementioned, the wiring utilized within the aircraft system of Galipeau et al. is broadly construed as being “pre-existing” given that it existed before the filing of the instant application. Alternatively, the wiring is construed as “pre-existing” in the context of it necessarily existing prior to the user operating the system so as to facilitate the communication of signals between system components. Alternatively, the wiring would be considered “pre-existing” should a “seat-unit” [18] fail and be subsequently replaced by an operational unit (Col 6, Lines 57-62). Additionally, the reference further explicitly incorporates by reference provisional application 60/103,823 which discloses that the system advantageously takes advantage of “pre-existing” wiring within the aircraft in connection

with system installation or system upgrades in order to take advantage of cost savings associated with the reuse of previously installed components (Examiner designated Page 9 - 3.7 Upgrade Requirements; Page 29 – Overview – What is Voyager? (cont.)). Such includes the usage of “pre-existing” USB connections between the “seat unit” [18] and the passenger seat (Examiner designated Page 37 – Telephony – New PAC Cabin System; Page 40 – Network Architecture – Seat Distribution).

Claim 9 is rejected wherein the “plurality of signals comprise at least one of audio signals, video signals, and data signals” (Col 3, Lines 1-10).

Claim 10 is rejected wherein the “first audio processing circuit comprises a radio audio processing unit” [196] (Col 11, Lines 9-21).

Claim 11 is rejected wherein the system further comprises a “second audio processing circuit” [194] “operable to generate audio and video signals and being coupled to the seat unit” [18] over a “wireline communication channel” [20] (Figure 9/A; Col 10, Line 61 – Col 11, Line 8).

Claims 12 and 13 rejected wherein the “passenger audio transducer comprises a video monitor” [154] and “speaker” for outputting the audio associated with the video programming (Col 9, Lines 21-25 and 32-37).

Claim 14 is rejected wherein the system further comprises a “telephone handset” [144] “coupled to the first telephone signal processing circuit for directing telephone signals to a passenger” [188] (Col 2, Lines 24-36; Col 10, Lines 39-46).

In consideration of claim 15, Figure 1 of the Galipeau et al. reference illustrates a communication system for an aircraft” [10] comprising an “integrated signal unit” [18] that



“communicates a plurality of disparate signals of an aircraft bus” [20] “to and from the passenger seat” wherein the “signal unit” [18] interfaces to the “aircraft bus via existing telecommunication lines” such as those associated with IEEE-1394 or the like (Col 4, Lines 32-52). As aforementioned, the lines as illustrated necessarily “exist” in order for the system to operate. As illustrated in Figures 6A/B, the system further comprises a “receiving system” associated with the user’s handset/telephone/video monitor [124/144/154] which is in “communication with the signal unit that receives at least one of the plurality of disparate signals and outputs a signal to a passenger in the passenger seat” including those associated with telephony, audio programming and video services as aforementioned (Figure 9B).

Claim 17 is rejected as illustrated in Figures 6A/B wherein the “signal unit” [18] “reformats at least one of audio signal and video signals into reformatted information” (ex. IEEE-1394 to USB) and “transmits the reformatted information over the existing telecommunication lines” associated with the USB standard interconnecting the “signal unit” [18] to the “passenger seat”.

Claims 18 and 19 are rejected wherein the “signal unit reformats audio signals as audio data” [120] and necessarily “transmits the audio data on an unused channel of the existing telecommunication lines” in accordance with the USB standard such that “the signal is sent to the passenger seat for output to the passenger via an unused channel of the existing telecommunication lines” in order for the user to selectively receives and listen to a discrete audio selection (Col 7, Line 34-41; Col 8, Line 16-21). For example, it is unclear as to how a universal serial bus comprising a number of channels would send information over a channel that is currently used or busy and still provide the user with the selected audio programming.

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Claim 19 is rejected wherein the system further comprises an “integrated receiver” [124] “associated with the passenger seat and in communication with the signal unit such that a plurality of signals received thereunto are parsed and presented to the passenger on a logical basis”. For example, the “integrated receiver” is capable of present a plurality of signals corresponding to audio programming logically through the usage of headphones (Col 7, Line 34 – Col 8, Line 10) and is also integrated with telephony functionality (Col 9, Lines 5-12).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galipeau et al. (US Pat No. 6,249,913 B1).

In consideration of claim 16, as illustrated in Figures 6A/B, the Galipeau et al. reference illustrates the particular usage of USB in order to enable the “signal unit” [18] to “communicate the plurality of disparate signals to and from the passenger seat”. The reference, however, is silent with respect to the usage of a “wireless link” such as that associated with USB interconnection. The examiner takes OFFICIAL NOTICE as to the existence of “wireless links” associated with a plurality of data communication protocols including but not limited to USB. Accordingly, it would have obvious to one having ordinary skill in the art at the time the invention was made so as to employ a “wireless link”

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for the commonly known advantage of using wireless links so as to reduce weight of the aircraft.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Hall et al. (US Pat No. 6,577,419) reference discloses a wireless distribution system within an aircraft.
- The Kuo (US Pat No. 4,428,078) reference discloses the particular usage of a wireless passenger entertainment system in order to reduce the weight penalty to an aircraft and to reduce maintenance time requirements.
- The Oxman (US Pat No. 4,352,200) reference discloses a wireless aircraft passenger audio entertainment system.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to

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37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 571-272-7343.

The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB  
July 11, 2005

  
**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**